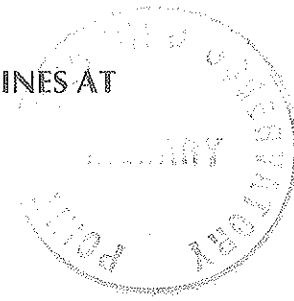


#46

SPECIES COMPOSITION OF COMMON PASSERINES AT POINT REYES BIRD OBSERVATORY¹

Robert M. Stewart



INTRODUCTION

The main purpose of this paper is to report the species composition of the most common passerines caught in mist nets at PRBO-Bolinas during spring and fall migration 1967-1971. Some comparisons with other stations are made. The interpretation of these data are merely suggestive because the effect that differences in habitat had on the species composition is unknown. Nevertheless, I hope the data presented here will add to our meager knowledge of passerine migration in central California.

METHODS

Net sites at Bolinas were the same in spring and fall each year. The number of nets used varied from year to year, but the number for spring and fall of each year were the same. In the spring, nets were run an average of 77 per cent of the possible days during 15 March to 31 May. In the fall, nets were run an average of 90 per cent of the days between 16 August and 15 November. The dominant tree species near most of the net sites (85%) was Coast Live Oak (*Quercus agrifolia*). The remaining net sites (15%) were in disturbed coastal scrub where the dominant plant, Coyote Bush (*Baccharis pilularis*), was interspersed with grass.

At Mono Lake (northwest edge) 10-15 nets were run daily from dawn to 1300 between 27 August and 27 September 1970. Nets were located in Willow (*Salix*), with tall Alder (*Alnus*), Cottonwood (*Populus*), and Poplar (*Populus*) interspersed in the area.

At Robinson Flat near Duncan Peak Lookout (6,700 feet elevation) in the Tahoe National Forest, ten nets were run daily from dawn to 1300 from 28 August to 26 September. Seven nets were located in Mountain Alder (*Alnus tenuifolia*) and three in Willow. The small meadow in which netting took place was surrounded by a forest consisting predominantly of Red Fir (*Abies magnifica*) and Lodgepole Pine (*Pinus contorta*).

At Sacramento 10-15 nets were run daily from 0900 to 1300 from 18 August to 7 September. Net sites were located in Willow. Large Cottonwood trees were present in the area.

¹Contribution number 46 of Point Reyes Bird Observatory

RESULTS

The most common species caught in mist nets at Bolinas during spring and fall are shown in Table 1. One striking difference between spring and fall in the winter resident species is the paucity of numbers in the spring compared to the fall. On Southeast Farallon Island, located 21 miles southwest of Bolinas, there are similar data for White-crowned Sparrow (*Zonotrichia leucophrys*), Golden-crowned Sparrow (*Zonotrichia atricapilla*), and Fox Sparrow (*Passerella iliaca*) (See Point Reyes Bird Observatory Annual Report 4, 5 and 6). These data suggest that, at least in these three species, migration does not take place along the coast in the spring.

In the Orange-crowned Warbler (*Vermivora celata*) and the Western Flycatcher (*Empidonax difficilis*) obvious differences in abundance occur between spring and fall at Bolinas. The Orange-crowned Warbler is the most abundant species caught in the spring but is least abundant in the fall. This species appears to be more abundant during the fall in the central valley and the Sierras judging from the species composition at Robinson Flat, Mono Lake, Sacramento (Tables 2-4), and Casewell State Park (1966, *Audubon Field Notes*, 21:75). It is possible that this species migrates near the coast in the spring but generally moves inland during the fall.

On the other hand the Western Flycatcher which is least abundant in the spring at Bolinas is by far the most abundant in the fall. In the fall the relative abundance of Western Flycatchers at Sacramento, Robinson Flat, and Mono Lake is low compared with Bolinas. Thus, one might hypothesize that most individuals of this species migrate along the coast in the fall.

Hopefully the species composition at more stations in central California will add to our picture of passerine migration in this part of the state.

ACKNOWLEDGEMENTS

The list of people who helped collect these data is too long to print here. I thank all the staff and volunteers of Point Reyes Bird Observatory for their efforts.



ADDITIONAL COLOR-MARKING AUTHORIZATIONS



SPECIES	HOW MARKED	COLOR	BANDED BY
White Pelican	streamer	blue, lavender	Dr. Dennis Raveling, Dept. Anim. Physiol. U.C., Davis, Ca. 95616
White Pelican	dye leg band	yellow, green, blue, purple red	Utah Coop WRU, Utah St. U, Logan, Utah 84321
Red-tailed Hawk	dye paint on tail	yellow red, green, blue, white, black	Dr. Joseph Murphy, Dept. Zoo, BYU, Provo, Utah 84601
Swainson's, Ferruginous Hawks	paint on tail	green, blue, white, black	Dr. Joseph Murphy (address above)
Lesser Sandhill Crane	plastic marker rivited to upper leg	orange & white striped	James L. Sands, N.M. Dept. Game & Fish, RR Box 10, Placitas, N.M. 87043
Burrowing Owl	leg band	red, orange, yellow, green, blue, white, black, pink	Stephen G. Martin, Dept. Zoo, C.S.U., Ft. Collins, Colo. 80521
Spotted Owl	leg band	gold	Howard M. Wight, Dept. Fish & Wildlife, O.S.U., Corvallis, Ore. 97331
Williamson's Sapsucker	leg band	red, yellow, green, blue, white, pink	Allegra Collister, 706 Hover Rd. Longmont, Colo. 80501
Clark's Nutcracker	leg band	red, orange, yellow, green, blue, white, black, pink, purple	Stephen Vander Wall, Dr. Russell Balda, Dept. Bio. Sc., N. Az. U., Flagstaff, Az. 86001
Steller's Jay	leg band	red, orange, yellow, green, blue, white, black, pink, purple	Dr. Russell Balda (address above)
Robin	leg band	red, yellow, green, blue, white, black, (Truckee, Ca.)	Jennifer M. White, MVZ, U.C., Berkeley, Ca. 94720
Bobolink	leg band	red, yellow, blue, white, black	Malheur N.W.R., Box 113, Burns, Ore. 97720
Red-winged Blackbird	dye leg streamer, leg band	red, green, blue red, green, blue, white, black, brown, purple (St. David, Az.)	Dr. Stephen M. Russell, Dept. Bio. Sc., U.A., Tucson, Az. 85721
Bullock's, Hooded, Scott's Orioles	leg band	red, orange, yellow, green, blue, white, pink, lavender	Stephen Carothers, Mus. N. Az., P.O. Box 1389, Flagstaff, Az. 86001
Oregon Junco	dye - body leg band and/or dye	red, green, blue, black, purple red, orange, yellow, blue	Dennis L. McDonald, Dept. General Sc., O.S.U., Corvallis, Ore. 97331

Netting Technique

The May 1972 issue of *EBBA News* (Vol. 35, No. 2) contains an article by Charles T. Collins, WBBA's President, entitled, "A Flip Netting Technique for Capturing Swifts and Swallows." This technique was used successfully in taking swifts and swallows in Trinidad and in California.

In conclusion, Dr. Collins states, "This 'flip-netting' technique is easy to use and could, I believe, be utilized by other banders in situations where these or other species of birds are flying low over open ground when fixed nets would be readily seen and avoided."

Table 1. Species composition at PRBO-Bolinas 1967-1971

Spring	
Summer Residents (16 March to 31 May)	Number
✓ Orange-crowned Warbler	302 ¹
✓ Warbling Vireo (<i>Vireo gilvus</i>)	205 ¹
✓ Swainson's Thrush (<i>Hylocichla ustulata</i>)	203 ¹
✓ Wilson's Warbler (<i>Wilsonia pusilla</i>)	189 ¹
✓ Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>)	81 ¹
✓ Western Flycatcher	70 ¹
Winter Residents (16 March to 31 May)	
✓ Hermit Thrush (<i>Hylocichla guttata</i>)	35
✓ Ruby-crowned Kinglet (<i>Regulus calendula</i>)	23
✓ White-crowned Sparrow (<i>Zonotrichia leucophrys pugetensis</i>)	20
✓ Fox Sparrow	14
✓ Townsend's Warbler (<i>Dendroica townsendi</i>)	12
includes returns	
Fall	
Summer Residents and Transients (16 August to 15 October)	Number
✓ Western Flycatcher	955
✓ Warbling Vireo	380
✓ Swainson's Thrush	317
✓ Wilson's Warbler	193
✓ Yellow Warbler (<i>Dendroica petechia</i>)	144
✓ Orange-crowned Warbler	96
Winter Residents (1 September to 15 November)	
✓ Hermit Thrush	722
✓ White-crowned Sparrow (<i>pugetensis</i>)	614
✓ Ruby-crowned Kinglet	563
✓ Golden-crowned Sparrow	456
✓ Fox Sparrow	216
✓ Townsend's Warbler	136
✓ Golden-crowned Kinglet (<i>Regulus satrapa</i>)	134

Table 2. Species Composition at Robinson Flat 1970

Species	No.
✓ Oregon Junco (<i>Junco oreganus</i>)	378
✓ Audubon's Warbler (<i>Dendroica auduboni</i>)	220
✓ Orange-crowned Warbler	74
✓ Wilson's Warbler	25
✓ MacGillivray's Warbler (<i>Oporornis tolmiei</i>)	18
✓ Nashville Warbler (<i>Vermivora ruficapilla</i>)	15

Table 3. Species Composition at Mono Lake 1970

Species	No.
✓ Orange-crowned Warbler	69
✓ Yellow Warbler	69
✓ Wilson's Warbler	33
✓ Robin (<i>Turdus migratorius</i>)	32
✓ MacGillivray's Warbler	30
✓ Western Wood Pewee (<i>Contopus sordidulus</i>)	30
✓ Dusky Flycatcher (<i>Empidonax oberholseri</i>)	18
✓ Warbling Vireo	18
✓ Hammond's Flycatcher (<i>Empidonax hammondi</i>)	17
✓ House Wren (<i>Troglodytes aedon</i>)	14
✓ Solitary Vireo (<i>Vireo solitarius</i>)	12

Table 4. Species Composition at Sacramento 1970

Species	No.
✓ Lazuli Bunting (<i>Passerina amoena</i>)	76
✓ Wilson's Warbler	34
✓ Orange-crowned Warbler	25
✓ MacGillivray's Warbler	16
✓ Yellow Warbler	15
✓ Nashville Warbler	10
✓ Western Flycatcher	8
✓ Traill's Flycatcher (<i>Empidonax trailli</i>)	8

P.O. Box 321, Bolinas, California 94924

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